

SOLICITATION/CONTRACT/ORDER FOR COMMERCIAL ITEMS <i>Offeror to Complete Blocks 12, 17, 23, 24, & 30</i>					1. Requisition Number 72930	PAGE 1 OF 13	
2. Contract No. DE-AF65-06WG72930		3. Award/Effective Date 7/14/06		4. Order Number		5. Solicitation Number DE-RQ65-06WG72930	6. Solicitation Issue Date June 19, 2006
7. For Solicitation Information Call:		a. Name Lary A. Martin LMARTIN@WAPA.GOV		b. Telephone Number (No collect calls) (602) 605-2646		8. Offer Due Date/Local Time July 14, 2006 / 12:00 PM	
9. Issued By U.S. DEPT OF ENERGY WESTERN AREA POWER ADMIN 615 S 43rd AVENUE PHOENIX, AZ 85009-5313		Code G1500 10. This Acquisition is <input type="checkbox"/> Unrestricted <input checked="" type="checkbox"/> Set-Aside 100 % for <input checked="" type="checkbox"/> Small Business <input type="checkbox"/> HubZone Small Business <input type="checkbox"/> 8(A) NAICS: 321999 Size Standard: 500		11. Delivery for FOB Destination Unless Block is Marked. <input checked="" type="checkbox"/> See Schedule		12. Discount Terms	
15. Deliver To WESTERN AREA POWER ADMINISTRATION 615 SOUTH 43RD AVENUE PHOENIX, AZ 85009		Code PAO-WHSE		16. Administered By U.S. DEPT OF ENERGY WESTERN AREA POWER ADMIN 615 S 43rd AVENUE PHOENIX, AZ 85009-5313		Code	
17a. Contractor/Offeror AIW Inc. 4502 Old Winter Garden Road, Suite G Orlando FL 32811 DUNS: 197567659 Telephone No. 480.922.3622		Code 1TMB5 Facility Code		18a. Payment Will Be Made By Western Area Power Administration Accounts Payable - A8210 P.O. Box 281111 Lakewood, CO 80228-8111		Code	
17b. Check if Remittance is Different and Put Such Address in Offer. <input type="checkbox"/>				18b. Submit Invoices to Address Shown in Block 18a Unless Box Below is Checked. <input type="checkbox"/> See Addendum.			
19. CONTRACT LINE ITEM NO.	20. SCHEDULE OF SUPPLIES/SERVICES SEE PAGE 2			21. QUANTITY	22. UNIT	23. UNIT PRICE	24. AMOUNT
25. Accounting and Appropriation Data				26. Total Award Amount (For Govt. Use Only) \$ 145,902.00			
<input checked="" type="checkbox"/> 27a. Solicitation incorporates by reference FAR 52.212-1, 52.212-4, FAR 52.212-3 and 52.212-5 are attached. Addenda <input checked="" type="checkbox"/> are <input type="checkbox"/> are not attached							
<input checked="" type="checkbox"/> 27b. Contract/Purchase Order incorporates by reference FAR 52.212-4, 52.212-5 is attached. Addenda <input checked="" type="checkbox"/> are <input type="checkbox"/> are not attached							
<input checked="" type="checkbox"/> 28. Contractor is required to sign this document and return 1 copies to Issuing Office. Contractor agrees to furnish and deliver all items set forth or otherwise identified above and on any additional sheets subject to the terms and conditions specified herein.				<input checked="" type="checkbox"/> 29. Award of Contract: Reference. CLIN 0001 to 0009 Offer Dated 7/14/06 Your offer on Solicitation (Block 5), including any additions or changes which are set forth herein, is accepted as to items:			
30a. Signature of Offeror/Contractor Tiffany Mayne				31a. United States of America (Signature of Contracting Officer) LARY A. MARTIN			
30b. Name and Title of Signer (Type or Print) Tiffany Mayne Targeting Specialist		30c. Date Signed 7/14/2006		31b. Name of Contracting Officer (Type or Print) LARY A. MARTIN		31c. Date Signed 7/14/06	
32a. Quantity in Column 21 Has Been <input type="checkbox"/> Received <input type="checkbox"/> Inspected <input type="checkbox"/> Accepted, and Conforms to the Contract, Except as Noted:							
32b. Signature of Authorized Government Representative				32c. Date		32d. Printed Name and Title of Authorized Government Representative	
32e. Mailing Address of Authorized Government Representative				32f. Telephone Number of Authorized Government Representative			
32g. E-mail of Authorized Government Representative				37. Check Number			
33. Ship Number <input type="checkbox"/> Partial <input type="checkbox"/> Final		34. Voucher Number		35. Amount Verified Correct For		36. Payment <input type="checkbox"/> Complete <input type="checkbox"/> Partial <input type="checkbox"/> Final	
38. S/R Account Number		39. S/R Voucher Number		40. Paid By		41a. I certify this account is correct and proper for payment	
41b. Signature and Title of Certifying Officer		41c. Date		42a. Received By (Print)		42b. Received At (Location)	
42c. Date Rec'd (YY/MM/DD)		42d. Total Containers		STANDARD FORM 1449 (REV. 4/2002)			



A.I.W., Inc.
 4502 Old Winter Garden Road
 Suite G
 Orlando, FL 32811
 V 407-521-4576
 F 407-445-4603

SCHEDULE Continued

CONTRACT LINE ITEM NO.	Supplies/Services	Quantity	Unit	Unit Price	Amount
0001	POLE, WOOD, 100', CLASS 2, SPEC. TT-W-571C	5	EA	\$3,070.00	\$15,350.00
0002	POLE, WOOD, 50', CLASS 2, SPEC. TT-W-571C	10	EA	\$ 891.00	\$ 8,910.00
0003	POLE, WOOD, 60', CLASS 2, SPEC. TT-W-571J	19	EA	\$1,308.00	\$24,852.00
0004	POLE, WOOD, 65', CLASS 2, SPEC. TT-W-571J	20	EA	\$1,520.00	\$30,400.00
0005	POLE, WOOD, 70', CLASS 2, SPEC. TT-W-571J	20	EA	\$1,600.00	\$32,000.00
0006	POLE, WOOD, 75', CLASS 2, SPEC. TT-W-571C	6	EA	\$1,780.00	\$10,680.00
0007	POLE, WOOD, 85', CLASS 2, SPEC. TT-W-571C	2	EA	\$2,400.00	\$ 4,800.00
0008	POLE, WOOD, 95', CLASS 2, SPEC. TT-W-570	4	EA	\$2,900.00	\$11,600.00
0009	UNLOADING POLES	86	EA	\$ 85.00	\$ 7,310.00
	DELIVERY TO BE FOB DESTINATION WITHIN CONSIGNEE'S PREMISES ON OR BEFORE AUGUST 18, 2006 9/14/06			TOTAL FOR CONTRACT	\$145,902.00

Treated with CuNap
 Delivery Date 45-60 Days ARO 9/14/06

(c) Contract Clauses

The clauses applicable to this effort, as listed in the Federal Acquisition Regulation (FAR) and supplements thereto, are incorporated herein by reference and in full text. Those incorporated by reference have the same force and effect as if they were given full text.

**1. 52.212-4 CONTRACT TERMS AND CONDITIONS - COMMERCIAL ITEMS
(SEPT 2005)**

Addendum to 52.212-4:

**2. 52.244-6 SUBCONTRACTS FOR COMMERCIAL ITEMS (DEC 2004)
(IAW FAR 44.403)**

**3. 52.247-35 F.o.b. Destination, Within Consignee's Premises
(Apr 1984)**

**4. LG.0000-0010 APPOINTMENT OF CONTRACTING OFFICER'S
REPRESENTATIVE (COR) AND ALTERNATE COR (WAPA 1/96)**

The following duties have been assigned to Dave Gedlinske, who is appointed COR, and to Catherine Castle, who is appointed Alternate COR. The COR and Alternate COR shall prepare memorandums for record (MFR) of all meetings, trips, and telephone conversations relating to this contract. Each MFR, other similar records, and all correspondence relating to the contract shall cite the contract number. The COR and Alternate COR duties are as follows:

(a) Monitor technical compliance. Ensure that the contractor complies with all technical requirements of the work as defined in the scope of work and specifications including the submission of reports, data, documentation, etc. In this connection:

(1) Inform the CO, in writing, of any performance failure by the contractor.

(2) Inform the CO if it is evident the contract will not be completed according to schedule.

(3) Ensure that the Government meets its contract obligations to the contractor. This includes, but is not limited to, Government- furnished equipment and services called for in the contract, and timely Government comment on or approval of contract deliverables as may be required by the contract.

(4) Inform the CO, in writing, of any needed changes in the narrative scope of work as contained in the contract, either those initiated by the COR, the Alternate COR, or the contractor.

Proposed revisions to the scope of work which result in monetary changes to the contract must be accompanied by a procurement request. Contract changes which do not involve funds may be requested by memorandum to the CO.

(5) Issue technical directions.

(b) Monitor administrative tasks and fund expenditures (If support service contract).

(1) Notify the CO and the appropriate budget personnel immediately of any indication that the cost to the Government for completing performance under the contract will exceed the amount stated in the contract, or of any indication that costs are being incurred which are not appropriately chargeable to the contract.

(2) Review and concur on payment vouchers regarding the percent of technical completion for items or services accepted under the contract (in accordance with contract provisions or local procedures, as appropriate).

(3) Review and concur with the final payment voucher; i.e., the items or services accepted under the contract in accordance with contract provisions or local procedures, as appropriate.

(4) Notify the CO immediately of the contractor's failure (1) to provide or deliver any required supplies, equipment, or services (including submission of plans or drawings) or (2) to make progress on construction contracts consistent with agreed upon progress schedules.

(5) Review contractor requests for training and travel and approve or disapprove, as appropriate. Monitor travel and training expenses submitted by the contractor.

(c) Monitor property management (If Applicable).

(1) As requested by the CO, review and comment on the contractor's request for Government-furnished facilities, supplies, materials, and equipment and forward the request to the CO for disposition.

(2) As requested by the CO, review and comment on the contractor's request for consent to purchase of supplies, materials, and equipment and forward the request to the CO for disposition.

(d) Resolve technical differences. Assist the contractor in interpreting technical requirements of the contract's scope of work. All technical questions arising out of the contract which cannot be resolved without increasing costs, alterations or changes to the contract scope, or the incurrence of unresolvable differences should be reported in writing to the CO. The report should contain the facts and recommendations.

(e) Assist in the closeout of the contract. Upon completion of the work, forward to the CO a written statement attesting to the contractor's completion of technical performance under the contract, delivery and acceptance of all goods and services for which inspection and acceptance are herein delegated, and a statement as to the contractor's performance of the contract.

(f) In the performance of their duties, the COR and the Alternate COR are NOT authorized to:

(1) Negotiate terms or make any agreements or commitments with the contractor which modify the contract provisions or the scope of work.

(2) Direct, redirect, or assign work outside the scope of work or take any action which would constitute a change as defined in the changes clause.

(3) Cause an increase or decrease in the total contract price, estimated cost, the fixed fee (if any), or the time required for contract performance.

(4) Interfere with the contractor's right to perform under the terms and conditions of the contract.

(g) The authority and responsibilities as a COR or an Alternate COR are individually delegated and may not be redelegated. If the COR or Alternate COR are absent or otherwise not available and technical direction is required to be issued to the contractor, the only other person who is authorized to issue such direction is the CO. No person other than the CO is authorized to sign a technical direction letter for the COR, nor can anyone acting in the official duty position assume COR authority.

5. WH.0004-0001 FOREIGN VISITORS AND CONTRACT EMPLOYEES (WAPA, MAY 2005)

The Contractor must receive prior, written approval from the appropriate Western Security Manager (WSM) before any non-U.S. Citizens (Foreign Nationals) visit or work at any Western Area Power Administration (Western) facility. The Contractor must certify in writing that:

1) each of their employees working under this contract that may visit or be assigned to work at any Western facility is a U.S. Citizen, or;

2) the Contractor shall provide an accurately completed Foreign National Data Card, WAPA Form 3000-72, Attachment D, for each of their Foreign National employees that may visit or work at any Western facility. The Contractor shall forward the completed Form to the COR at least 45 days in advance of each Foreign National employee's visit or their beginning of work. Foreign National employees shall not be allowed on-site at any Western facility without prior approval of the cognizant WSM. Circumstances which do not allow a 45 day notification require prior, written approval of the cognizant WSM. The Contractor shall include this requirement in any subcontract it issues under this contract. Western reserves the right to remove any contract employee from Western's property pending the conclusion of the Foreign National background check.

6. 52.212-5 CONTRACT TERMS AND CONDITIONS REQUIRED TO IMPLEMENT STATUTES OR EXECUTIVE ORDERS--COMMERCIAL ITEMS (APR 2006)

(a) The Contractor shall comply with the following Federal Acquisition Regulation (FAR) clauses, which are incorporated in this contract by reference, to implement provisions of law or Executive orders applicable to acquisitions of commercial items:

(1) 52.233-3, Protest After Award (AUG 1996) (31 U.S.C. 3553).

(2) 52.233-4, Applicable Law for Breach of Contract Claim (Oct 2004) (Pub. L. 108-77, 108-78)

(b) The Contractor shall comply with the FAR clauses in this paragraph (b) that the Contracting Officer has indicated as being incorporated in this contract by reference to implement provisions of law or Executive orders applicable to acquisitions of commercial items:

[Contracting Officer check as appropriate.]

— (1) 52.203-6, Restrictions on Subcontractor Sales to the Government (Jul 1995), with Alternate I (Oct 1995) (41 U.S.C. 253g and 10 U.S.C. 2402).

— (2) 52.219-3, Notice of Total HUBZone Set-Aside (Jan 1999) (15 U.S.C. 657a).

— (3) 52.219-4, Notice of Price Evaluation Preference for HUBZone Small Business Concerns (JULY 2005) (if the offeror elects to waive the preference, it shall so indicate in its offer) (15 U.S.C. 657a).

— (4) [Reserved]

X (5)(i) 52.219-6, Notice of Total Small Business Set-Aside (June 2003) (15 U.S.C. 644).

 (ii) Alternate I (Oct 1995) of 52.219-6.

 (iii) Alternate II (Mar 2004) of 52.219-6.

 (6)(i) 52.219-7, Notice of Partial Small Business Set-Aside (June 2003) (15 U.S.C. 644).

 (ii) Alternate I (Oct 1995) of 52.219-7.

 (iii) Alternate II (Mar 2004) of 52.219-7.

 X (7) 52.219-8, Utilization of Small Business Concerns (May 2004) (15 U.S.C. 637(d)(2) and (3)).

 (8)(i) 52.219-9, Small Business Subcontracting Plan (July 2005) (15 U.S.C. 637(d)(4)).

 (ii) Alternate I (Oct 2001) of 52.219-9.

 (iii) Alternate II (Oct 2001) of 52.219-9.

 X (9) 52.219-14, Limitations on Subcontracting (Dec 1996) (15 U.S.C. 637(a)(14)).

 (10)(i) 52.219-23, Notice of Price Evaluation Adjustment for Small Disadvantaged Business Concerns (SEPT 2005) (10 U.S.C. 2323) (if the offeror elects to waive the adjustment, it shall so indicate in its offer).

 (ii) Alternate I (June 2003) of 52.219-23.

 (11) 52.219-25, Small Disadvantaged Business Participation Program-Disadvantaged Status and Reporting (Oct 1999) (Pub. L. 103-355, section 7102, and 10 U.S.C. 2323).

 (12) 52.219-26, Small Disadvantaged Business Participation Program-Incentive Subcontracting (Oct 2000) (Pub. L. 103-355, section 7102, and 10 U.S.C. 2323).

 (13) 52.219-27, Notice of Total Service-Disabled Veteran-Owned Small Business Set-Aside (May 2004).

 X (14) 52.222-3, Convict Labor (June 2003) (E.O. 11755).

 X (15) 52.222-19, Child Labor-Cooperation with Authorities and Remedies (Jan 2006) (E.O. 13126).

 X (16) 52.222-21, Prohibition of Segregated Facilities (Feb 1999).

 X (17) 52.222-26, Equal Opportunity (Apr 2002) (E.O. 11246).

 X (18) 52.222-35, Equal Opportunity for Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans (Dec 2001) (38 U.S.C. 4212).

 X (19) 52.222-36, Affirmative Action for Workers with Disabilities (Jun 1998) (29 U.S.C. 793).

 X (20) 52.222-37, Employment Reports on Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans (Dec 2001) (38 U.S.C. 4212).

 (21) 52.222-39, Notification of Employee Rights Concerning Payment of Union Dues or Fees (Dec 2004) (E.O. 13201).

— (22)(i) 52.223-9, Estimate of Percentage of Recovered Material Content for EPA-Designated Products (Aug 2000) (42 U.S.C. 6962(c)(3)(A)(ii)).

— (ii) Alternate I (Aug 2000) of 52.223-9 (42 U.S.C. 6962(i)(2)(C)).

X (23) 52.225-1, Buy American Act—Supplies (June 2003) (41 U.S.C. 10a-10d).

— (24)(i) 52.225-3, Buy American Act—Free Trade Agreements—Israeli Trade Act (APR 2006) (41 U.S.C. 10a-10d, 19 U.S.C. 3301 note, 19 U.S.C. 2112 note, Pub. L. 108-77, 108-78, 108-286).

— (ii) Alternate I (Jan 2004) of 52.225-3.

— (iii) Alternate II (Jan 2004) of 52.225-3.

— (25) 52.225-5, Trade Agreements (Apr 2006) (19 U.S.C. 2501, et seq., 19 U.S.C. 3301 note).

— (26) 52.225-13, Restrictions on Certain Foreign Purchases (Feb 2006) (E.o.s, proclamations, and statutes administered by the Office of Foreign Assets Control of the Department of the Treasury).

— (27) [Reserved]

— (28) [Reserved]

— (29) 52.232-29, Terms for Financing of Purchases of Commercial Items (Feb 2002) (41 U.S.C. 255(f), 10 U.S.C. 2307(f)).

— (30) 52.232-30, Installment Payments for Commercial Items (Oct 1995) (41 U.S.C. 255(f), 10 U.S.C. 2307(f)).

X (31) 52.232-33, Payment by Electronic Funds Transfer—Central Contractor Registration (Oct 2003) (31 U.S.C. 3332).

— (32) 52.232-34, Payment by Electronic Funds Transfer—Other than Central Contractor Registration (May 1999) (31 U.S.C. 3332).

— (33) 52.232-36, Payment by Third Party (May 1999) (31 U.S.C. 3332).

X (34) 52.239-1, Privacy or Security Safeguards (Aug 1996) (5 U.S.C. 552a).

— (35)(i) 52.247-64, Preference for Privately Owned U.S.-Flag Commercial Vessels (Feb 2006) (46 U.S.C. Appx. 1241(b) and 10 U.S.C. 2631).

— (ii) Alternate I (Apr 2003) of 52.247-64.

(c) The Contractor shall comply with the FAR clauses in this paragraph (c), applicable to commercial services, that the Contracting Officer has indicated as being incorporated in this contract by reference to implement provisions of law or Executive orders applicable to acquisitions of commercial items:

[Contracting Officer check as appropriate.]

— (1) 52.222-41, Service Contract Act of 1965, as Amended (July 2005) (41 U.S.C. 351, et seq.).

— (2) 52.222-42, Statement of Equivalent Rates for Federal Hires (May 1989) (29 U.S.C. 206 and 41 U.S.C. 351, et seq.).

— (3) 52.222-43, Fair Labor Standards Act and Service Contract Act—Price Adjustment (Multiple Year and Option Contracts) (May 1989) (29 U.S.C. 206 and 41 U.S.C. 351, *et seq.*).

— (4) 52.222-44, Fair Labor Standards Act and Service Contract Act—Price Adjustment (Feb 2002) (29 U.S.C. 206 and 41 U.S.C. 351, *et seq.*).

— (5) 52.222-47, SCA Minimum Wages and Fringe Benefits Applicable to Successor Contract Pursuant to Predecessor Contractor Collective Bargaining Agreements (CBA) (May 1989) (41 U.S.C. 351, *et seq.*).

(d) *Comptroller General Examination of Record*. The Contractor shall comply with the provisions of this paragraph (d) if this contract was awarded using other than sealed bid, is in excess of the simplified acquisition threshold, and does not contain the clause at 52.215-2, Audit and Records—Negotiation.

(1) The Comptroller General of the United States, or an authorized representative of the Comptroller General, shall have access to and right to examine any of the Contractor's directly pertinent records involving transactions related to this contract.

(2) The Contractor shall make available at its offices at all reasonable times the records, materials, and other evidence for examination, audit, or reproduction, until 3 years after final payment under this contract or for any shorter period specified in FAR Subpart 4.7, Contractor Records Retention, of the other clauses of this contract. If this contract is completely or partially terminated, the records relating to the work terminated shall be made available for 3 years after any resulting final termination settlement. Records relating to appeals under the disputes clause or to litigation or the settlement of claims arising under or relating to this contract shall be made available until such appeals, litigation, or claims are finally resolved.

(3) As used in this clause, records include books, documents, accounting procedures and practices, and other data, regardless of type and regardless of form. This does not require the Contractor to create or maintain any record that the Contractor does not maintain in the ordinary course of business or pursuant to a provision of law.

(e)(1) Notwithstanding the requirements of the clauses in paragraphs (a), (b), (c), and (d) of this clause, the Contractor is not required to flow down any FAR clause, other than those in paragraphs (i) through (vii) of this paragraph in a subcontract for commercial items. Unless otherwise indicated below, the extent of the flow down shall be as required by the clause—

(i) 52.219-8, Utilization of Small Business Concerns (May 2004) (15 U.S.C. 637(d)(2) and (3)), in all subcontracts that offer further subcontracting opportunities. If the subcontract (except subcontracts to small business concerns) exceeds \$500,000

(\$1,000,000 for construction of any public facility), the subcontractor must include 52.219-8 in lower tier subcontracts that offer subcontracting opportunities.

(ii) 52.222-26, Equal Opportunity (Apr 2002) (E.O. 11246).

(iii) 52.222-35, Equal Opportunity for Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans (Dec 2001) (38 U.S.C. 4212).

(iv) 52.222-36, Affirmative Action for Workers with Disabilities (June 1998) (29 U.S.C. 793).

(v) 52.222-39, Notification of Employee Rights Concerning Payment of Union Dues or Fees (Dec 2004) (E.O. 13201).

(vi) 52.222-41, Service Contract Act of 1965, as Amended (July 2005), flow down required for all subcontracts subject to the Service Contract Act of 1965 (41 U.S.C. 351, et seq.).

(vii) 52.247-64, Preference for Privately Owned U.S.-Flag Commercial Vessels (Feb 2006) (46 U.S.C. Appx. 1241(b) and 10 U.S.C. 2631). Flow down required in accordance with paragraph (d) of FAR clause 52.247-64.

(2) While not required, the contractor may include in its subcontracts for commercial items a minimal number of additional clauses necessary to satisfy its contractual obligations.

Any addendum to 52.212-5:

7. LH.0000-0078 LOBBYING RESTRICTION (ENERGY AND WATER ACT 2006) (WAPA, FEB 2006)

The contractor agrees that none of the funds obligated on this award shall be expended, directly or indirectly, to influence Congressional action on any legislation or appropriation matters pending before Congress, other than to communicate to Members of Congress as described in 18 U.S.C. 1913. This restriction is in addition to those prescribed elsewhere in statute and regulation.

8. LH.0000-0079 NOTICE REGARDING THE PURCHASE OF AMERICAN-MADE EQUIPMENT AND PRODUCTS -SENSE OF CONGRESS (WAPA 3/2004)

It is the sense of the Congress that, to the greatest extent practicable, all equipment and products purchased with funds made available under this award should be American-made.

9. LJ.0000-0001 LIST OF ATTACHMENTS - SERVICES (WAPA 5/96)

The following Attachments will become a part of the contract award:

A: SPECIFICATIONS (6 PAGES)

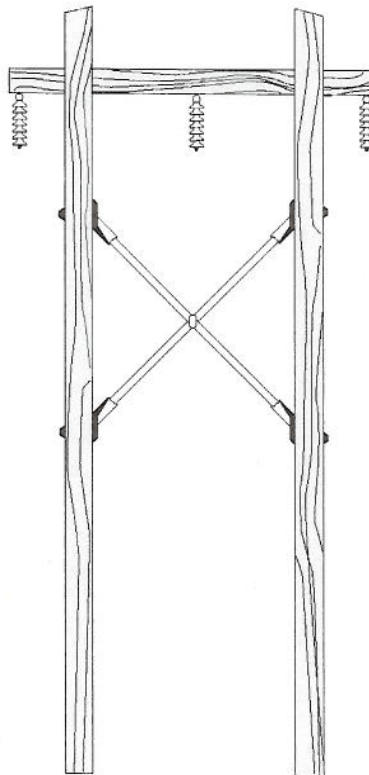
ATTACHMENT A

SPECIFICATIONS

PAGES
6



**TECHNICAL SPECIFICATION FOR
WESTERN AREA POWER ADMINISTRATION
OPERATION AND MAINTENANCE PURCHASE OF
WOOD POLES**



October 2005

SAFETY
A HABIT TO LIVE BY

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WOOD POLES

SECTION 1--WOOD POLES

1.1 GENERAL:

Furnish and deliver wood poles as stated in these technical specifications. Materials shall be of the type and grade most suitable for the application and shall conform to industry standards and practices. All materials shall be free from defects, of recent manufacture, and unused.

Referenced Documents:

- American National Standards Institute (ANSI) Standards latest edition, Specifications and Dimensions for Wood Poles
- American Institute of Timber Construction (AITC), AITC 114 and ANSI/AITC A190.1 Standards latest editions
- American Wood Preservers Association (AWPA) Standards latest editions

1.2 MATERIAL:

1. SPECIFICATIONS AND DIMENSIONS: ANSI 05.1, except as follows:

- (1) Spiral Grain: The maximum twist of grain that is permitted is 1/2 twist in any 18 feet of length.
 - (2) Sweep: Shall be measured from the butt of the pole.
 - (3) Inner Bark: All inner bark shall be removed.
2. CLASS: Shall be Class 1 or 2 unless specified otherwise with a maximum top circumference of 39 and 38 inches, respectively.
 3. SPECIE: Only Pacific Coast Douglas Fir (Fir) or Western Red Cedar (Cedar) poles shall be permitted.

1.3 INCISING:

1. Incising of Fir poles may be required to meet the penetration or checking requirements of the preservative treatment. The pattern and depth of incising of the pole shall be at the option of the Contractor. Incising shall be accomplished in a manner which will not unduly damage the surface of the pole by splintering, raising the wood fibers from the surface, gouging, or loosening the sapwood from the heartwood.
2. Incising of Cedar is not required.

1.4 THROUGH-BORING:

1. The ground line area of the Fir poles shall be through-bored before treatment in accordance with the drawing 41 6106. Ground line shall be determined per ANSI 05.1.
2. Through-boring is not required for full-length treated Cedar.

1.5 POLE PREPARATION:

1. POLE ANTI-SPLITTING DEVICES: Shall be placed in pole tops before treatment and be equal to "Star Lock" which is manufactured by the Bayne Company, South 4333 Locust Road, Spokane, WA 99206.

WOOD POLES

2. **MARKING DISC RECESSES:** Shall be placed on the pole face and butt before treatment. Recesses on the face shall be placed approximately 12 feet from the butt on poles 55 feet and shorter, 14 feet from the butt on poles 75 feet and shorter, and 16 feet from the butt on poles 80 feet and longer. The recesses shall have flat bottoms, a minimum 2-inch diameter, and a depth of 1/4-inch to 1/2-inch at the recess periphery.
3. **ROOFING:** Poles shall be roofed 15° from horizontal before treatment.
- 1.6 **SEASONING:** Seasoning of Fir shall be by the Boulton drying method or a combination of Boulton drying with air seasoning or kiln drying in accordance with ANSI 05.1. Seasoning of Cedar shall be by kiln drying or a combination of air seasoning or kiln drying in accordance with ANSI 05.1.
 1. The Boulton drying solution temperature shall be kept between 180°F and 220°F for not less than 24 hours to remove any incipient decay. The average moisture content using the oven-drying method of AWP in the 0.5- to 1.5-inch zone at midlength shall not exceed 18 percent after Boultonizing and prior to pressure treatment.
 2. Air seasoning of Fir shall not exceed 2 years.
 3. For kiln drying on Fir and Cedar, the maximum dry bulb temperature shall be increased gradually and shall not exceed 160°F and 190°F, respectively. The maximum wet bulb temperature shall not exceed 50°F, with the exception that during the first 24 hours, there is no limitation of wet bulb depression.
- 1.7 **PRESERVATIVE TREATMENT:**
 1. **PRESERVATIVE:**
 - (1) Preservative for Fir and Cedar shall be Oil-borne Pentachlorophenol or Copper Naphthenate meeting the requirements of AWP P8.
 - (2) Oil Solvent shall be Type A and meet the requirements of AWP P9.
 2. **TREATMENT:**
 - (1) Fir poles shall be full length pressure-treated by an empty-cell process in accordance with AWP-C4. After pressure treatment, an expansion bath shall be performed for a minimum of 3 hours, followed by final steaming for a minimum of 2 hours, followed by final vacuum for a minimum of 2 hours.
 - (2) Cedar poles shall be full-length pressure-treated or thermal-treated in accordance with AWP C4 or C8, respectively.
 - (3) Poles shall be clean and dry to the touch at the time of delivery. Poles that bleed preservative, either at the plant or at delivery, shall be rejected.
 - (4) All borings, except through-borings, shall be plugged with tight-fitting cylindrical wood plugs that have been treated with the preservative used to treat the pole.
 3. **PENETRATION:**
 - (1) For Fir poles, penetration of preservative shall be 100 percent in the ground line bored area as shown on drawing 41 6106. The minimum penetration of preservative shall be 90 percent of sapwood in all other areas where the sapwood has a minimum thickness of 7/8-inch. If the

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sapwood is less than 7/8-inch thick, the pole shall be incised, and penetration of preservative shall be a minimum of 3/4-inch.

- (2) For Cedar, the minimum penetration at ground line of the pole shall be 100 percent for 1/8 to 1/2-inch sapwood thickness and 90 percent of the sapwood over 1/2-inch.

4. RETENTION:

- (1) For Fir poles, the retention of preservative shall not be less than 0.60 pounds per cubic foot for Pentachlorophenol and 0.095 pounds per cubic foot for Copper Naphthenate in the assay zone of 0.25 to 1.0-inches from the surface and in accordance with AWWA C1 and C4.
- (2) For Cedar poles, the retention of preservative shall not be less than 0.180 pounds per cubic foot for Pentachlorophenol and 0.12 pounds per cubic foot for Copper Naphthenate in the assay zone of 0.10-0.60 inches from the surface and in accordance with AWWA C1 and C4.

5. MOISTURE CONTENT:

- (1) For Fir poles, the average moisture content after treatment, oven-dry basis or toluene extraction method, of the 0.5 to 1.5-inch zone at midlength shall not exceed 18%.
- (2) For Cedar poles, the average moisture content after treatment, oven-dry basis or toluene extraction method, of the 0 to 1.0-inch zone at midlength shall not exceed 18%.
- (3) Poles shall be tested at random, after treatment, for moisture content. Measurements shall be made with a resistance type moisture meter equipped with insulated electrodes. These measurements will be taken at midpoint to a depth of 1 inch for Fir and 1/2-inch for Cedar. Poles having a moisture content in excess of that specified shall be rejected.

1.8 CHECKING:

After treatment, the surface dimension of any check shall not exceed a width greater than 1/2-inch for any 4 feet of continuous length with the exception of the top butt which must meet ANSI 05.1. If checks are separated by less than 1/4-inch, they are considered continuous.

1.9 RETREATMENT:

Pole may be retreated only once.

1.10 MARKING:

Wood poles shall be marked with two aluminum discs in accordance with 05.1. The discs shall be made of 24-gauge aluminum and shall be approximately 2 inches in diameter. The discs shall be punched for nails, placed in the marking disc recesses on the pole face and butt, and attached with two 2-inch aluminum twist nails.

1.11 CERTIFICATIONS:

As soon as practical after completion of treatment, provide one certified copy of the records or test results to the COR:

1. SAPWOOD TEST: A boring shall be made after treatment at the midpoint in each pole.
2. TREATMENT TESTS: Poles shall be inspected in accordance with AWWA M2 to assure compliance with the requirements in AWWA C4, or as specified herein. The penetration of preservative shall be tested in accordance with the requirements of AWWA A3. The retention of

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preservative shall be tested in accordance with the requirements of AWP A5, Method 5, for pentachlorophenol and AWP A5, Method 7, for copper naphthenate. Borings shall not be taken in through-bored or deep-incised areas. Penetration tests shall be performed on each pole. A single boring shall be taken from each of 20 randomly selected poles to determine the retention of preservative.

Treatment test results shall show:

- (1) Compliance with applicable AWP A specifications.
 - (2) Number and type of pieces per charge.
 - (3) Species of wood.
 - (4) Kind of preservative used.
 - (5) Depth of sapwood.
 - (6) Penetration obtained.
 - (7) Retention obtained.
 - (8) Moisture content after treatment.
3. PRESERVATIVE TESTS: The preservative used in the treating of poles shall be tested in accordance with AWP A M2 and AWP A A5 (Method 5 for pentachlorophenol and Method 7 for copper naphthenate).

1.12 INSPECTIONS:

1. Treated poles shall be inspected in accordance with AWP A C1, M1 and M2.
2. Pole supplier shall lay out and turn poles as required for inspection by Western, in accordance with AWP A M2, before and after treatment. Poles may be inspected by Western before and after treatment. Western reserves the right to witness tests and to approve the manner in which the tests are conducted. Furnish all test apparatus and instruments required.

1.13 STORAGE, HANDLING, AND TRANSPORT:

In accordance with ANSI O5.1 and AWP A M4, tools producing a penetration of more than 1 inch shall not be used. Untreated poles shall be stacked in such a way as to allow free circulation of air around each pole.

Contractor shall be responsible for notifying Western at least 72 hours prior to delivery of poles in order that Western personnel may be made available at the delivery site for the off loading of the wood poles. The contractor shall be responsible for providing the necessary equipment for safely off loading of wood poles at each delivery site.